

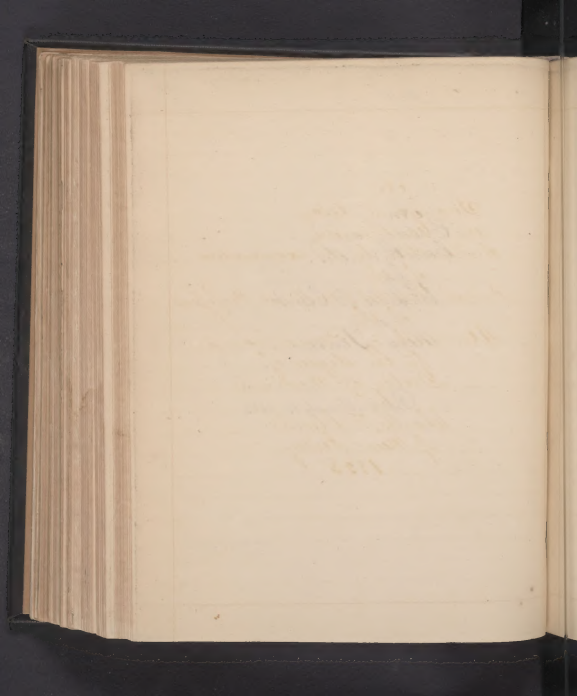
No 118

Cantharides

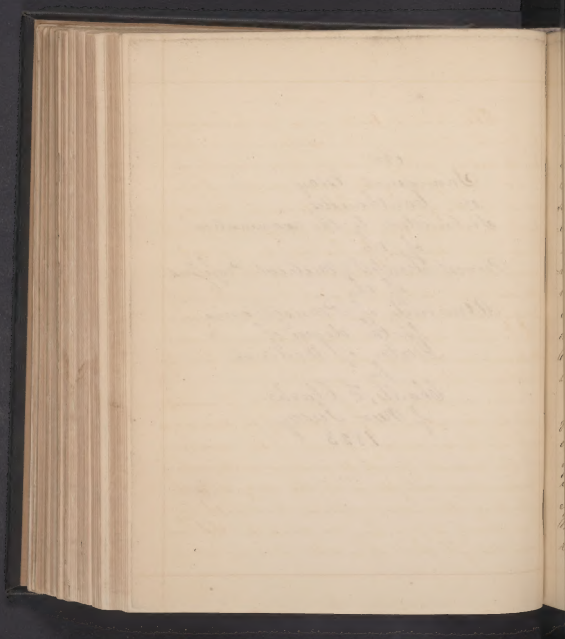
NO 10

An
Essay on
Cantharides
by
Charles F. Clark
of
New Jersey

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An
Inaugural Essay
on Cantharides
Submitted to the examination
of the
Provost, Trustees & Medical Professors
of the
University of Pennsylvania
for the degree of
Doctor of Medicine
by
Charles, F. Clarke.
of New Jersey
1823



The natural tendency in the human frame to become diseased, induces Man to seek for the means of relief; and, he has accordingly made every part of the great creation subservient to his purpose: the Mineral, the vegetable, and the Animal Kingdoms, all furnish him with articles for his use; and, it is curious, as well as instructive, to reflect on the different articles which have alternately engaged the attention of Physicians; some have been extolled in the most extravagant manner in one age, and been found entirely without efficacy in another.

This constant change can only be accounted for, by the extreme imperfection of the knowledge which the ancients possessed of the economy of the human frame; according as Physicians become more enlightened on this subject, is the effects of Medicine reduced to something more nearly approaching to certainty; they have been taught that it is not upon one remedy

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in one combination of remedies, that they are
to rely, in the cure of diseases; but, by adopt-
ing certain remedies to certain states of the
System; thus for instance, peruvian bark, which
is universally allowed to be equivalent to the
cure of intermittents; if applied in an improper
state of the System, will necessarily fail.

And it is from neglecting this attention
to the state of the System, that remedies of
so opposite a nature, have been so highly col-
orated in the cure of particular diseases.

Physicians at this time, find no difficulty
in accounting for the cure of Scrophula, which
were performed by the Royal touch, recollecting the
natural tendency which this disease had to
disappear, as the patient approaches the age
of puberty. No remedy, to be applied effec-
tually, requires more attention to the state of the
System than the Cantharide: a Spanish fly, the
Subject of this essay; this, and amongst the
few remedies, which have maintained their
position, the revolutions of opinion and changes

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of practice which have occurred, they are perhaps the most efficacious remedy which we derive from the animal Kingdom.

The cantharis was not altogether unknown to the Ancients, for Hippocrates the great father of medicine, it is said administered them internally, their first application for the purpose of exciting blisters, was by a man who lived but a short time before Galen, and it was then the practice to rub them on the head till vesication was produced.

The Arabian Physicians were the first to make a proper application of the fly, but it was a different species from that now in use, the *Meloe chircovii* (of Linn.) they are said not to be possessed of such active properties as the common *Meloe*, from which, they may be distinguished, by their having black legs, whereas in the *Meloe vesicatorius* the legs are of the same colour as the body. They are called Spanish flies from the circumstance of their being obtained from Spain, though the largest quantity is now procured

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from India, they are to be found however in most
of the countries of Europe.

It seems that the *Scaphium* has been dis-
covered in this country, and could then be
obtained in sufficient quantities for medical
purposes, would be much the same as in
India, being just as common in India as the
common *Scaphium*, and more frequent in India
than the *Scaphium*.

The common *Scaphium* fly, the *Scaphium*
Scaphium is an insect of the beetle kind
from a few lines in length of a shining golden
green colour, the *Scaphium* a few are black,
joined, the head is somewhat round, the elytra
a little raised soft and flexible, and the head in-
serted, then slightly curved, and are seen in
swarms; the manner of proceeding ^{then} is in that manner
and the bees on which they settle, into a hole
and they are then destroyed by the fumes of
incense. It is said they present a splendid
appearance when disturbed at night. The bees
on which they rest appearing as if illuminated.



with fire; when perfectly dry they are very light, and are not destroyed by fire, though heated as they are, a part of them is consumed by an insect that reduces them to a fine powder which is extremely active, they have a peculiar rancorous smell like rancid sickle, taste; Dr. Boerhaave mentions in the dissertation that the Melonthe pills is frequently mixed with them and, as they are not possessed of the active property of the common one, should be picked out before they are administered, they may be distinguished in various square bodies.

The Cantharides have been analysed by Robiquet, and a peculiar principle discovered on which their blistering property depends; this substance has been named Cantharidin and tho. it possesses the blistering property of the fly, does not contain that which is called strychnin; it is soluble in hot alcohol, and again deposited when cold; it is soluble in oil, ether also dissolves it, but not pure water.



[illegible]

There are various modes of preparing the
linic plaster, and one which answers best
is to spread a plaster of Paris on a
and sprinkle the powdered glass over it; an
ointment made with a portion of mustard,
capsicum and Oil, is frequently kept by the
Apothecaries, and this almost instantly produ-
ces a blister when spread upon heated skin.
affixed to the surface of the body, when we



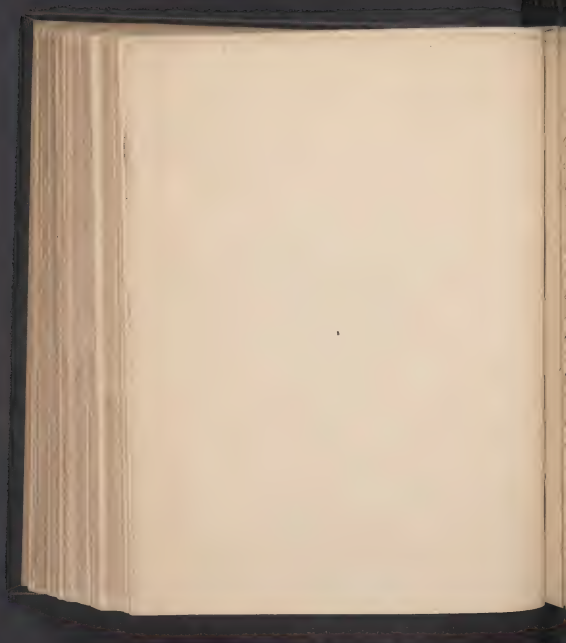
have not the cement at hand, a quantity
of the powdered flint sprinkled over a common
plaster will answer very well, and it is ob-
served in Dr. Chapman in his therapeutics that
with the common blistering plaster has produ-
ced a subsequent effect, the application
of a poultice will not only produce well
filled vesications, but prevent the occurrence
of Stranguria.

The Cantharides when used internally
may be exhibited in powder or tincture, the
dose of the former is from grs. 1 to 5ssj, the
latter however is generally ordered, the dose
of which is, from 10 to 15 drops, two or
three times a day. In an overdose the Can-
tharides produces very unpleasant effects,
discharges of blood in urine, with intense
pain, and sometimes inflammation of the
urinary intestinal Canal, and even mucous
and purulent stools, giddiness, delirium
and death. It has been supposed that
the cantharides, possess the power to increase



the stomach, &c., and although it is one of those medicines which displays a marked affinity to the urinary organs, yet, I have seen it given without any such effect, and heard of a great many other instances.

When given internally, it produces a glow upon the surface, and if given in pretty full doses in a proper state of the system will increase the discharge of urine. Dr. Chapman says he often drains acute fevers down by this purgative in the hospital; in milder cases, and when the system is in a state of excitement, this will produce strangury; given as a diuretic this should be accompanied with plenty of drinks, as solution of Gum Arac. in Rassaed tea &c.; as drinking copiously of pure liquor has been found the most efficacious mode of relieving, as well as continuing Strangury. Dr. Cullen and others believed that the Piles never produced a diuretic effect, but experienced the



great test is to be found in the human brain.

Blister may be said to act in the same or different, either in a general or local manner; in the first case they produce a stimulating effect, which often counteracts the exciting morbid action prevailing in the system. In the second they produce an irritation on the surface, which is intended, by sympathy to the local affection existing in a particular part, and either overcome it or invade it to the surface; in the action of mercury, as we said in the same part at the same time, the weaker must give way to the stronger, since the merit for reducing the force of the disease in the viscera, prevails to the application of blisters; and then they produce an account of it as in circulation.

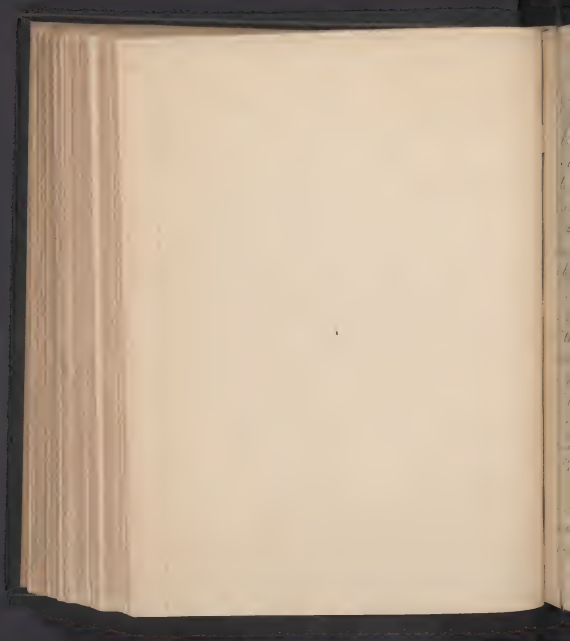
I am now to give some account of their use in the cure of diseases and first in the cure of fever. there has been much controversy respecting their efficiency in this class of



disorder some contending that there are of
no service whatever, while others consider them
as one of our best remedies in combatting the
disease; this difference of opinion I imagine
has arisen from the different states of the
system in which they have been applied, as
used when the force of the disease is broken,
and while there is great excitement, they will
invariably do harm; and if delayed till the
system is prostrated too low they will not
draw and if they should, they will not produce
the salutary impressions, which they are so well
calculated to make when properly timed.

The precise point at which it is proper
to resort to blister has been evading the
question, point, and it requires attention on
the part of the practitioners to discover and
mark it.

This remedy has not been very extensively
employed in intermittents, tho' there are many
cases recorded where the bark has been used
but in a long time without effect.



application of blisters to the wrists, & in such
is confined to its action, some cases are
also seen in which blisters to the stomach
is as to be found, & then just after about
the time the paroxysm was expected to be
prevented its accession.

To the remittent fevers from which was
formed the present season to which we
shall assign the share of Disease, and which
has occasioned more destruction of life than
is within the recollection of the oldest Inha-
bitants, blisters has been found peculiarly
opposite, to quiet the irritation of the stomach,
and to draw the system inwards to the action
of the bark. This preparation seems to be
more autumn in every part of our country,
and is generally of an inflammatory cast,
blisters were previous to the inflammation when
some reduction would be more likely to succeed,
instead of increasing the disease, but cases
attended with great exaltation of the tem-
per which is a violent symptom, blisters, the



be used early, and should be applied
well into the season.

A third species of *Junco* known by the
name of *Junco hyemalis*, which was so long
known to our Art, — a almost depopulated
species, which *Junco* was long believed
off each of that area.

Junco hyemalis, *Junco hyemalis* *Junco hyemalis*

I want the reader to,

"Sweet endeavours of the falling west"

and for the *Junco hyemalis* *Junco hyemalis*
own distinction, and intense obs. about has
induced it certain that the *Junco* is the
most upon which the greatest force of the
Junco is applied, and which is the subject
with which it appears in nature, that it
lives in a group for a few days only, as
one other would give an indication, prompt
and active *Junco* alone are to be seen
may and as a species of *Junco* is produced
the most active use of the land and
which constitute one principal resource;



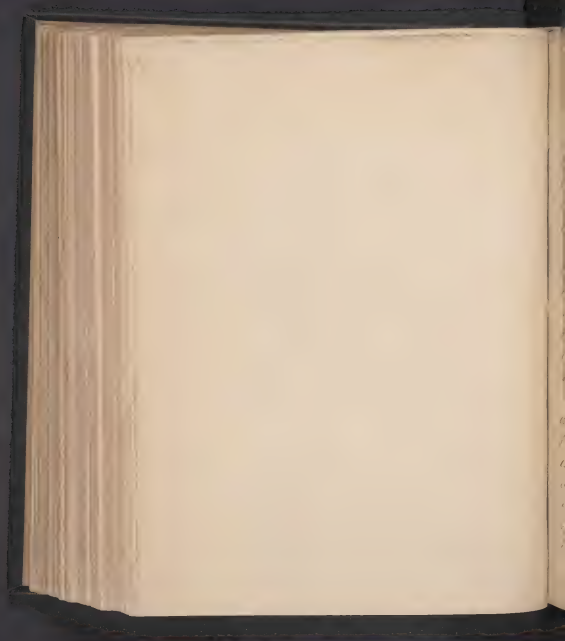
blister, in such cases relieve the distressing
 sensations of the tumor, allow the venous
 and arterial circulation to be restored, he used
 to recommend remedying these things in and
 about the lowest degree, and apply
 directly over the region of the tumor when
 Christum is present which is frequently the case,
 a blister to the hand has been found to
 great service to relieve this affection in other
 hands, and the hand then to be shaved a short
 time previous to the application, as this has
 been found to prevent the occurrence of disease.

It was Dr. Rushington to assist in this
 in this disease if the patient did not intend to
 have a cure done, and he said they seldom
 failed to produce an interstices, but I
 consider the great efficacy of blisters to be
 in relieving the unpleasant and local sensations
 of the Hernia, therefore they will no doubt
 be found useful in giving the patient's mind
 to the cure, after which there has been mention
 of other remedies.



"The power of the system, all directed
toward inflammation, a congestion, they are
equally applicable; but the one operation is
permitted in bleedings both general and local,
and that the system generally, as near the
seat of the local inflammation as possible,
and it should be concluded that ex-
istence cannot be given, advantage will be
a bloodless surface, and the same in the
case of general inflammation; but
this means the cluster will be under more
operations, and the action will within
time be the same as the remains of the
inflammation, and the system a new
injection complete, and the system
restored."

"The first is given, attended with an
inward determination of blood to the
seat, producing intense pain, determine
to relieve it, that the blood is in
it, attend the proper remedy, after which
a bluish to cure the whole system for



presently presents the most secondary effects
in the various stages of this disease. It relates
to the abdomen and is of the most violent
kind. In the treatment of this disease, I have seen the
doctors but very few, who are very successful, but
it is not perhaps the proper one; even that
and in all patients, but the same, although
in some cases, the disease is violent, it is
a very violent fever, that in several cases
could not be placed, and the same, and, and
to the same, when the same, and
the same, and the same, and the same, and
in some cases, the disease is violent, and presents
a solution of the fever.

The whole of a patient's system is
not present in a system, or the same,
but, and in some cases, the disease is
the most violent of the physician
and, in all the inflammation, and
the abdominal system, and the same,
and, and, and, and, and, and, and
and, and, and, and, and, and, and, and
and, and, and, and, and, and, and, and



Stomach in this disease, that nothing can be done with internal remedies, one must suppose the stomach and distending fluids, for instance of the same nature, as also for instance, and distending, though we have not so much doubt in the stomach as in the peritoneum. It is not, for instance, attended with a good effect; in the last mentioned disease, a common recommendation is to apply the abdomen, but in such cases this will never, worth, produce a more effect. The external means are recommended to be all, to relieve the distending nature of the stomach; in diseases which involve the patient of his life as this, one should to nature, something more prompt than the common distending fluids is required, and it has been recommended to make use of the Nitric Acid, the means of a flatulent distension is it can be used over the lower of the stomach, this will produce very quickly the distending effect of the fluids, and in a lower



cannot write & will answer any question
 to the patient's satisfaction. These are applied
 in the treatment of the patient as an
 anti-spasmodic in the case of the much used.
 In the diseases of the stomach & intestines are
 so treated, and when the system is in the
 operation of the most active cathartics, the
 much is prominently marked, in such cases
 a state of the abdomen will render the
 action of the cathartics speedy, and generally
 certain. If the intestine is affected by
 the effect they are very generally applied
 in that species of inflammation, when there is a
 engaged state of the lungs, so much that it is
 taken out of the general circulation, that a
 large bleeding might be attended with
 fatal effects, and are considered to avoid
 great bleedings, and a large bleed to the
 trunk is a natural auxiliary, in the more
 common form, when there is a inflammation
 of the pleura. A state of the lungs, blood
 has been united to previous to the use,



1
of the lower, but such a fracture I think
is here considered it is thought to be one
common and harmful, perhaps, at present
of medicine; there is perhaps no disease in
which a free use of the lower is required
more in this, and blisters are of the greatest
service when made to remove the extension
near the incipient stage of Pott's disease to
act as counter irritants. Blisters are uncom-
monly resorted to, and to a large measure
than are, and other moderate depleting
means this disease may frequently be
arrested, but after it is once formed it
is almost impossible to arrest it, or
to reach to our art; some of the most
acute affections of the chest may be re-
lieved by blisters such as asthma pectoris
&c.

Blisters are used in most of the affections
of the head; in Epilepsy it is said that
they are applied upon the feet, in some cases, in
the practice of medicine, but more common to
be employed





in the application of the opium, it is necessary
 to apply it to the rectum, & not to the stomach,
 to avoid in some cases the violent effects
 from a Stimulus to the stomach in a case of
 the former disease; & opium is not to be
 trusted in such cases.

Less violent is the application of nuxom,
 to counteract the affection. It will just as
 well be used in such diseases, than in
 to them, counteracting the effects, & it is
 some of its influential effects have been found
 in the same diseases; the use of opium
 is to be given in the 'Catarrh', and other
 inflammation symptoms attendant on Measles.
 The 'Catarrh' when complicated with an affec-
 tion of the throat, is managed according
 to the rules, forth with applied.

There are a great variety of remedies in
 arresting the progress of the contagious influen-
 zation, and it was from this being in view
 in this disease that Dr. Parrish was induced
 to try their effects in arresting the progress



of Glanders, and this we usually compare
to the disease of the animals, a recurring
rhinitis, or in the, it may be a more
proper name, and in advantages which
it contains, derived from this and in optimum
the constitution can be better shown a depiction
of a man in a direct direction over the
and, showing the facts with a small set of
concurrent principles. In the description of humors
the power is universally acknowledged.

The practice of effluvia, which is in
this case, is a long, and the common ex-
pression of a dissection is one of the main im-
provements, but the science of Medicine is
settled in the uncertainty of Dr. P. and
the of the disease which he applies, along
the same course of the disease.

It only remains for me to give some
account of the one or several administrations
which were given in this case by Dr. P. and his
disciples, and yet it has not been a very long time
a part of the history of Medicine, and the present state of



administers them in this way; experience
 has taught me the medicinal effects,
 and has even served to diminish the
 habit of its practice; from this it follows
 in the urinary organs, and their stimulative
 properties they are well calculated for some
 of the ailments of these organs; I have known
 a case of obstinate and complete cure
 in a short time by their usage; the fluids
 taken twice a day; Dr. James recommends
 in his works the following formulae.
 I have seen marked advantage from it in
 an obstinate case which I have resisted
 every other remedy; it procures an agree-
 able glow upon the surface and diminishes
 the discharge in a short time.

I think contains 3/

See page 301 in the
 case of which is a table of quantities
 down to Americana I have known benefit
 derived from the exhibition of the tincture
 and I omit to mention when speaking of it.



blister, the efficacy of one applied to the sacrum in this disease, and in obstinate cases much benefit will be derived from such applications.

Dr. H. Frank of New York in his opinion on the modern practice of physic, says there is no article of the *Materia Medica*, which will produce such good effects in impotence from weakness of the seminal organs as the fly, he gives twenty five or thirty drops of the tincture, and increases it in a day a two to forty or fifty drops three times a day; Much perseverance, and regularity, is required in its use, to be of service; it sometimes will give relief in a short time, and in other cases years will be required to remove the disease; after taking it a short time the patient generally experiences some little difficulty in passing his urine, and this, if it does not increase may be disregarded, but if it should, it will then be necessary to intermit the medicine for a few days, till this

inconvenience is removed, when it should be again resorted to till the like effect is produced; patients labouring under this disease should be cheered with the prospect of a speedy cure being held out to them, for they too often give themselves up to despair with all its horrors, and considering their case as helplessly neglect taking the Medicine.

I have now brought to a conclusion this essay; and have only to regret, that it is not more worth of being offered to the University, from which I hope to derive the honour which the inconstant and desirous student can alone obtain.

Coni. In

History

Top. Int.

Geography

Affinity

Concussion - Can. Propriety

Super. Int. Int.

Apoph. Phases.